

## Edwards County

### Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/26/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 15 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Edwards County economy.<sup>1</sup>

These 15 sectors have a total direct output of approximately **\$439.8 million** and support **488.1 jobs** in Edwards County. Running the model for all 15 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Edwards County Economy						
Impact Type <sup>2</sup>	Employment	% Employment	Total Value Added <sup>3</sup>	Total Value Added % of Gross Regional Product <sup>4</sup>	Output <sup>5</sup>	Output % of Gross Regional Product
Direct Effect	488.1	24.00%	\$56,787,389	79.46%	\$439,785,385	615.38%
Indirect Effect	223.9	11.01%	\$15,119,785	21.16%	\$35,042,566	49.03%
Induced Effect	128.6	6.32%	\$7,461,731	10.44%	\$14,475,275	20.25%
<b>Total Effect</b>	<b>840.6</b>	<b>41.33%</b>	<b>\$79,368,904</b>	<b>111.06%</b>	<b>\$489,303,226</b>	<b>684.67%</b>

As shown in the above table, agriculture, food, and food processing sectors support **840.6 jobs**, or **41.33%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$489.3 million**, roughly **684.67% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 15 agriculture, food, and food processing sectors is approximately **\$79.4 million**, or **111.06% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **111.06% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

<sup>1</sup> Article on building a contribution analysis in IMPLAN that avoids double counting:

[http://www.implan.com/index.php?option=com\\_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70](http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70)

<sup>2</sup> Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

<sup>3</sup> Value added = labor income + indirect business taxes + other property type income.

<sup>4</sup> GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

<sup>5</sup> Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **150.3 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Edwards County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	150.3	\$36,010,919
Grain farming	143.2	\$96,034,494
Wholesale trade	99.7	\$21,869,254
Animal, except poultry, slaughtering	90.7	\$70,211,686
Support activities for agriculture and forestry	54.2	\$3,516,207
Soybean and other oilseed processing	39.3	\$209,761,844
All other crop farming	31.9	\$4,461,484
Hospitals	12.9	\$1,791,138
Accounting, tax preparation, bookkeeping, and payroll services	11.1	\$308,913
Full-service restaurants	11.0	\$396,400

The soybean and other oilseed processing sector directly contributes approximately **\$209.8 million** to the Edwards County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Soybean and other oilseed processing	39.3	\$209,761,844
Grain farming	143.2	\$96,034,494
Animal, except poultry, slaughtering	90.7	\$70,211,686
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	150.3	\$36,010,919
Wholesale trade	99.7	\$21,869,254
Oilseed farming	8.3	\$17,867,581
All other crop farming	31.9	\$4,461,484
Owner-occupied dwellings	0.0	\$4,203,009
Dairy cattle and milk production	10.3	\$3,857,679
Support activities for agriculture and forestry	54.2	\$3,516,207

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Edwards County economy.

<b>All Agriculture, Food, and Food Processing Sectors</b>		
<b>Sector</b>	<b>Total Employment</b>	<b>Total Output</b>
Oilseed farming	8.3	\$17,867,580.41
Grain farming	143.2	\$96,034,492.49
Vegetable and melon farming	0.3	\$70,543.95
Greenhouse, nursery, and floriculture production	2.1	\$277,770.37
All other crop farming	31.9	\$4,461,483.48
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	150.3	\$36,010,917.66
Dairy cattle and milk production	10.3	\$3,857,678.89
Poultry and egg production	0.02	\$14,237.68
Animal production, except cattle and poultry and eggs	0.2	\$35,409.96
Soybean and other oilseed processing	39.3	\$209,761,856.08
Animal, except poultry, slaughtering	90.7	\$70,211,685.18
Bread and bakery product, except frozen, manufacturing	1.7	\$182,553.99
Frozen cakes and other pastries manufacturing	0.1	\$15,932.00
Sawmills	2.0	\$431,742.97
Landscape and horticultural services	7.6	\$551,506.76

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Edwards County, the retail sector was omitted.